

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OHIO

Monode Marking Products, Inc.

Plaintiff,

v.

Columbia Marking Tools, Inc.,

Defendant.

Case No. 1:18-cv-00016-DCN

Judge Donald C. Nugent

**[PROPOSED] FINDINGS OF FACT AND CONCLUSIONS OF LAW**

The Court, following the *Markman* hearing that occurred on July 30, 2019, makes the following Findings of Fact and Conclusions of Law:

**FINDINGS OF FACT**

1. Monode Marking Products, Inc. (“Monode”) filed a complaint against Columbia Marking Tools, Inc. (“CMT”) on January 3, 2018. (Complaint, Doc. 1.)

2. Monode accuses CMT’s I-Mark II-Read System of infringing claims 1-23 of U.S. Patent No. 6,974,082 (“the ‘082 patent”). (Doc. 1 at 5–7; Initial Infringement Contentions, Doc. 24-2 at 2.)

3. CMT answered the Complaint on July 29, 2018, denying Monode’s infringement allegations and asserting, as a defense, that the ‘082 patent is invalid for failure to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103 and/or 112. (Answer, Doc. 8 at 2–5.)

4. CMT also filed on July 29, 2018, a Counterclaim seeking a declaration that CMT does not infringe the ‘082 patent and a declaration that the ‘082 patent is invalid for failure to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103 and/or 112. (Doc. 8 at 5.)

5. Monode responded to the Counterclaim on August 21, 2018. (Doc. 12.)

**The ‘082 Patent and Asserted Independent Claims**

6. The ‘082 patent, titled “Hardware Integration System,” issued on December 13, 2005, from US Patent Application No. 10/619,293, filed on July 15, 2003, which claims the benefit

of priority of US Provisional Application No. 60/395,904, filed on July 15, 2002. ('082 patent, cover page.)

7. The '082 patent names a single inventor: Jonathan T. Mackey ("Mr. Mackey"). ('082 patent, cover page.)

8. The '082 patent "relates generally to the field of automated vision or marking systems and, more particularly, to a computer controlled system that is capable of controlling, integrating and tracking the use and actions of various machines involved in a systematic vision and/or marking operation." ('082 patent, col. 1, ll. 5–10.)

9. According to the '082 patent, "a single computer application which integrates and coordinates the operation of such vision/marking machines and the various software applications associated therewith has not been created to date." ('082 patent, col. 3, ll. 55–58.)

10. The '082 patent is directed to "a software system for integrating the operation of a plurality of vision and/or marking [machines] within a system." ('082 patent, col. 4, ll. 14–16.)

11. Figure 4 of the '082 patent, reproduced below, "shows the functional relationship of the elements" of the system. ('082 patent, col. 9, ll. 13–14; FIG. 4.)

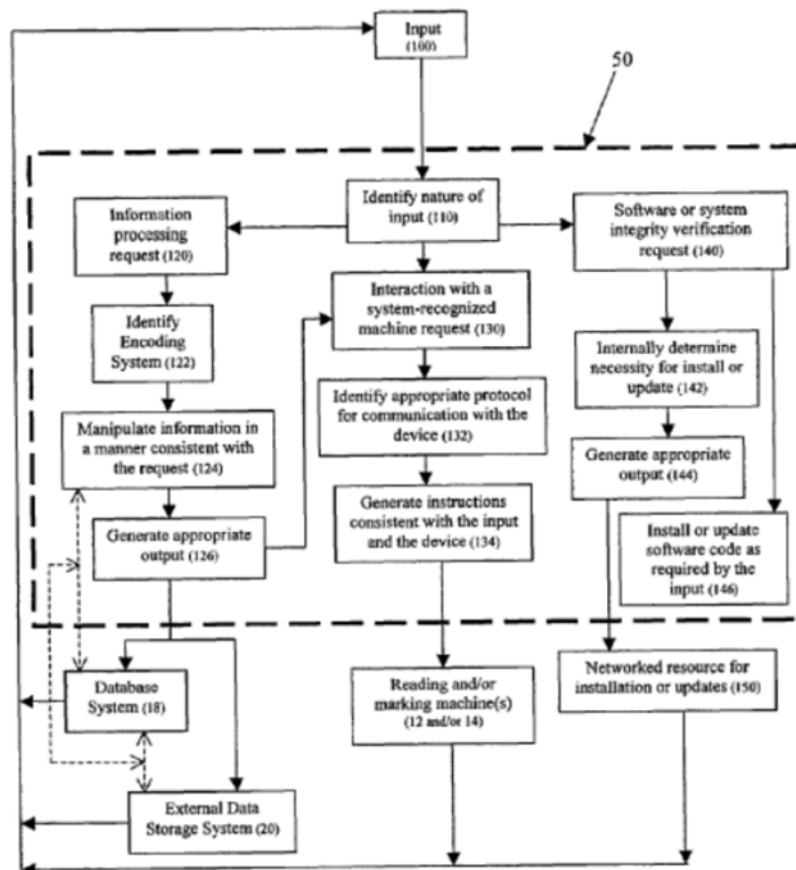


FIGURE 4

12. “As its goals, the present invention [of the ‘082 patent] seeks to provide a unitary method and system for controlling disparate machines within a vision and/or marking system.” (‘082 patent, col. 4, l. 66 – col. 5, l. 1.)

13. “Relying on known programming techniques,” the ‘082 patent describes a software application capable of achieving a variety of intended objectives with “an application, a subroutine, appropriate plug-in file, algorithm or other protocol.” (‘082 patent, col. 6, ll. 47–48, col. 10, 16–17.)

14. The ‘082 patent includes two independent claims (claims 1 and 12) and twenty-one dependent claims. (‘082 patent, claims.)

15. Claim 1 recites:

1. A system for selectively controlling operation of a means for reading or marking encoded information on an article, the system comprising:  
means for identifying an input provided by the means for reading or marking;  
data processing means for processing the input so as to generate a desired output, said means having an information processing request protocol, a machine interaction protocol and system integrity verification protocol;  
control means for controlling operation of the means for reading or marking in a manner that is responsive to at least one selected from the group consisting of the input and the output; and  
means for selectively generating and retrieving historical records related to the performance of the system.

(‘082 patent, claim 1.)

16. Claim 12 recites:

12. A software system for integrating and controlling the operation of a vision/marketing System, said vision or marking system having a plurality of machines for reading or marking encoded information on an article, said software system comprising:  
means for selectively linking all of the machines in the vision/marketing System to at least one user interface;  
means for identifying an input originating from at least one source selected from the group consisting of the user interface and at least one machine in the vision/marketing system;  
data processing means for processing the input so as to generate a desired output, said

means having an information processing request protocol, a machine interaction protocol and system integrity verification protocol; and  
control means for selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output, said control means being operatively implemented by the means for selectively linking the machines.

(‘082 patent, claim 12.)

**CMT’s Expert, Andrew Habedank**

17. On January 11, 2019, CMT disclosed Andrew Habedank (“Mr. Habedank”) as its expert for claim construction under Local Patent Rule 4.3 (Expert Claim Construction Discovery).

18. Mr. Habedank submitted a declaration on January 11, 2019, opining that the specification of the ‘082 patent fails to disclose an algorithm clearly linked to each of the claimed software functions from the perspective of a person having ordinary skill in the art at the time of the ‘082 patent. CMT filed the Habedank Declaration as Exhibit C to CMT’s Opening Claim Construction Brief. (Expert Report of Andrew Habedank, Doc. 24-6.)

19. Mr. Habedank has more than twenty years’ experience in the part marking, traceability, automation, and programmable controller industry. (Expert Report of Andrew Habedank, Exhibit 1.)

20. Mr. Habedank is employed as the Engineering Manager at Columbia Marking Tools, Inc. and has worked at CMT since 1999. (Expert Report of Andrew Habedank, Exhibit 1.)

21. Mr. Habedank’s responsibilities at CMT include: overseeing all technical aspects of the design, manufacture, and installation of a wide array of programmable marking systems used in automotive, aerospace, and other manufacturing industries; serving as the team lead for the design and development of CMT’s IMark Software that took the place of CMT’s predecessor program, Signumeric; managing the production and installation of the I-Mark Software and related controllers and marking equipment for a variety of customers in a variety of manufacturing industries; supervising the design, manufacture, and installation of more than 500 part traceability and automation systems at manufacturing facilities around the country and internationally; programming numerous industrial controllers to control a variety of equipment and hardware including industrial robots and vision and marking machines; and serving as team lead for design and build of CMT Handy Andy, M-Series, I-Series, and IMC Series of programmable industrial marking systems. (Expert Report of Andrew Habedank, Exhibit 1.)

22. Mr. Habedank earned a degree in Computer Aided Drafting and Design from ITT Technical Institute in 1999. (Expert Report of Andrew Habedank, Exhibit 1.)

23. Mr. Habedank holds numerous professional certifications related to a variety of control systems. (Expert Report of Andrew Habedank, Exhibit 1.)

24. In preparing his declaration, Mr. Habedank read the '082 patent and its prosecution history and relied on his more than twenty years of experience in the field of marking technology. (Expert Report of Andrew Habedank, Doc. 24-6 at ¶ 13.)

25. Mr. Habedank describes background technology in his declaration related to part marking and programmable industrial marking systems and provided examples of different marking systems including marking systems that use computers and software programs to operate. (Expert Report of Andrew Habedank, Doc. 24-6 at ¶¶ 21–23.)

26. Mr. Habedank declared that he was informed of, understands, and applied basic legal principles relating to claim construction including how to construe means-plus-function claim terms and computer-implemented-means-plus-function claim terms and how to evaluate the definiteness requirement of a claim term. (Expert Report of Andrew Habedank, Doc. 24-6 at ¶¶ 29–40.)

27. Relying on his extensive background in the part marking, traceability, automation, and programmable controller industry (including numerous professional certifications and experience with overseeing the design, manufacture, and installation of a wide-array of programmable marking systems), and his review of the '082 patent, Mr. Habedank determined that the '082 patent specification fails to disclose, for each software function, (1) an algorithm, (2) clearly linked to the claimed software function.

28. In rendering his opinion, Mr. Habedank referred to the figures in the '082 patent, determined that the figures schematically illustrate some of the intended functions of the claimed system, and concluded that the figures do not provide any further explanation of a computer and algorithm that performs the intended functions of the claim system beyond what is disclosed in the text of the patent. (Expert Report of Andrew Habedank, Doc. 24-6 at ¶ 28.)

29. Monode deposed Mr. Habedank on the subject of his declaration on February 6, 2019. Monode filed selected portions of the transcript as Exhibit A to Monode's Responsive Claim Construction Brief. (Doc. 27.)

30. Monode contends that Mr. Habedank is not a qualified expert under FRE 703 based on his education and because he has not written code for computer software programs using some of the specific programming languages mentioned in the '082 patent. (Hr'g Tr., Doc. 32, 95:1–99:12.)

31. Monode does not contest Mr. Habedank's ability to assess whether the '082 patent discloses algorithms for performing the claimed functions. (Hr'g Tr., Doc. 32, 141:21–142:5.)

#### **Monode's Expert, Andrei Goryankin**

32. Monode's expert, Andrei Goryankin, MSc PhD ("Dr. Goryankin"), submitted a declaration on February 8, 2019, opining that the specification of the '082 patent discloses an algorithm for performing the claimed software functions from the perspective of a person having ordinary skill in the art at the time of the '082 patent. (Expert Report of Andrei Goryankin, Doc. 24-8.)

33. CMT filed the Goryankin Declaration with the Court as Exhibit E to CMT's Opening Claim Construction Brief. (Expert Report of Andrei Goryankin, Doc. 24-8.)

34. Dr. Goryankin stated that the opinions in his declaration are "based on [his] review of the '082 Patent (including its prosecution history), the Habedank Report, and any documents cited in [his] Declaration [as well as his] education, experience, and knowledge related to reading and marking systems, electronics, algorithms, and traceable marking systems." (Expert Report of Andrei Goryankin, Doc. 24-8 at ¶ 5.)

35. Dr. Goryankin declared that he was informed of, understands, and applied basic legal principles relating to claim construction including how to construe means-plus-function claim terms and computer-implemented-means-plus-function claim terms. (Expert Report of Andrei Goryankin, Doc. 24-8 at ¶¶ 6–15.)

36. Dr. Goryankin is the president of Internet Database Software Incorporated and, since 2001, has worked primarily as a contract employee for Monode Marking Products. (Expert Report of Andrei Goryankin, Exhibit A.)

37. Together with Monode, Dr. Goryankin designed, developed and supports a parts marking software called "Traceable-IT." (Expert Report of Andrei Goryankin, Exhibit B.)

38. Dr. Goryankin's work with Monode is based on the '082 patent. (Expert Report of Andrei Goryankin, Exhibit B.) ("This project [Traceable-IT] is based on a U.S. Patent No. 6,974,082, 'Hardware integration system', granted to Monode Marking Products on December 13, 2005.")

39. Dr. Goryankin has a MSc and PhD in Computer Science from universities in the former USSR, and attended the Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio. (Expert Report of Andrei Goryankin, Exhibit A.)

40. Dr. Goryankin is fluent in English and Russian. (Expert Report of Andrei Goryankin, Exhibit A.)

41. CMT deposed Dr. Goryankin on the subject of his declaration on March 8, 2019, the transcript of which CMT filed with the Court in its entirety as Exhibit D to CMT's Opening Claim Construction Brief. (Goryankin Tr., Doc. 24-7.)

42. Monode contends that Dr. Goryankin "had some issues with English usage because it is not his native language." (Hr'g Tr. 109:21–23.)

43. Dr. Goryankin testified that he began learning English at school when he was nine years old, studied English for four years at university upon graduation, and then again while earning a Ph.D. (Goryankin Tr. 39:9–40:1.)

44. Dr. Goryankin further testified that he considers himself fluent in English. (Goryankin Tr. 40:7–8.)

45. When asked during his deposition, “[h]ave you been able to understand my questions?” Dr. Goryankin answered, “[y]es.” (Goryankin Tr. 40: 5–6.)

46. Dr. Goryankin, testified that the ‘082 patent is “an abstract representation of something,” and “usually it’s not quite clear what to do when you read the patent.” (Goryankin Tr., 103:21–24)

47. When asked during his deposition whether the ‘082 patent discloses how the claimed software of the ‘082 patent performs its stated functional objectives, Dr. Goryankin, contrary to his declaration, testified:

No, it doesn't, because it was not a purpose of the patent. See, that's the thing. The purpose of the patent was to describe the concept of how you compile or construct the system consisting of multiple different components. It didn't say how they would work together. It just explained that they can work together and then you have to fill in the blanks in figuring out how to connect them.

(Goryankin Tr., 167:7–15.)

48. Asked if the ‘082 patent discloses an algorithm for accomplishing the claimed functions, Dr. Goryankin, contrary to his declaration, testified:

No, it doesn't. Again, because it's assuming that that's something you know or you would have to figure out.

(Goryankin Tr., 168:1–3).

#### **A Person Having Ordinary Skill in the Art (“POSITA”)**

49. Monode proposes that a POSITA at the time of the ‘082 patent would have advanced computer programming experience, including: “(1) a bachelor’s degree in electrical engineering, computer science, or an equivalent degree, and at least three years of software application programming experience; or (2) at least eight years of software application programming experience with at least four years of such experience being in software application programming for reading and marking system.” (Monode Opening Claim Construction Brief (Doc. 23) at 6, note 2 *citing* Goryankin Decl. at ¶ 17; *see also* CMT Responsive Claim Construction Brief (Doc. 25) at 10–11.)

50. CMT proposes that a POSITA at the time of the ‘082 patent would have “(a) a Bachelor’s Degree in a field relating to computers, computer science, computer programming, or engineering and five years of experience with computer programming or marking systems; or (b) a professional certificate in a field relating to computers, computer science, computer programming, or engineering and ten years of experience with marking systems; or (c) ten years of experience with programmable marking systems.” (Expert Report of Andrew Habedank (Doc. 24-6) at ¶ 41.)



51. Monode contends that Mr. Habedank is not a POSITA under its proposed definition because he has not written code for computer software programs using some of the specific programming languages mentioned in the '082 patent. (Monode Responsive Claim Construction Brief (Doc 27) at 6–10.)

52. Dr. Goryankin testified that he understands the education of Mr. Mackey, the sole named inventor of the '082 patent, to be in cooking as a chef. (Goryankin, Tr. 123:19–25.)

53. When asked whether Mr. Mackey assisted with the computer programming of the software product based on the '082 patent, Monode's expert, Dr. Goryankin, testified that Mr. Mackey did not, stating that Mr. Mackey is "not a computer - - not literate, let's put it that way." (Goryankin Tr., 95:24–96:1.)

54. When asked whether Mr. Mackey meets the qualifications of "(1) a bachelor's degree in electrical engineering, computer science, or an equivalent degree, and at least three years of software application programming experience," Dr. Goryankin testified, "No. He doesn't." (Goryankin Tr., 125:17–23.)

55. When asked whether Mr. Mackey meets the qualifications of "(2) at least eight years of software application programming experience with at least four years of such experience being in software application programming for reading and marking system," Dr. Goryankin testified, "No." (Goryankin Tr., 125:25–126:6.)

56. Based on Mr. Mackey's knowledge, skill, experience, training, or education, Monode's proposed definition of a POSITA excludes Mr. Mackey—the sole inventor of the '082 patent. (CMT Responsive Claim Construction Brief (Doc 25) at 10–11.)

57. Under CMT's proposed definition of a POSITA, each of Mr. Habedank, Dr. Goryankin, and Mr. Mackey qualifies as a POSITA based on one or more of their respective knowledge, skill, experience, training, or education." (CMT Responsive Claim Construction Brief (Doc 25) at 10–11.)

#### **Means for Reading or Marking (claim 1)**

58. The '082 patent recites "means for reading or marking encoded information on an article" as an element of claim 1. ('082 patent, claim 1.)

59. As stipulated by the parties, the "means for reading or marking" claim element recited in claim 1 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Joint Claim Construction & Prehearing Statement, Doc. 29 at 2.)

60. As stipulated by the parties, the claimed function performed by the "means for reading or marking" is "reading or marking encoded information on an article." (*Id.* at 1.)

61. The parties agree that the specification of the '082 patent discloses at least the following hardware components as corresponding structure for performing the claimed function of "reading or marking encoded information on an article": "imagers, vision boards, hand-held scanners, fixed vision cameras, optical readers, charged coupled devices, laser or ink-jet printers,



pin-marking machines, micro mills, devices for etching, lasers, thermal printers, image scanners, and symbology reading devices.” (Joint Claim Construction & Prehearing Statement, Exhibit A, Doc. 29-1 at 1; ‘082 patent, col. 2, l. 61–63 and col. 2, l. 67 – col. 3, l. 2.)

**Means for Identifying an Input (claim 1)**

62. The ‘082 patent recites “means for identifying an input provided by the means for reading or marking” as an element of claim 1. (‘082 patent, claim 1.)

63. As stipulated by the parties, the “means for identifying” claim element recited in claim 1 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

64. As stipulated by the parties, the claimed function performed by the “means for identifying” is “identifying an input provided by the means for reading or marking.” (Joint Claim Construction & Prehearing Statement, Exhibit B, Doc. 29-2 at 1.)

65. The parties agree that the claimed function of “identifying an input provided by the means for reading or marking” is a software function implemented by a computer, and the “means for identifying” claim limitation recited in claim 1 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶ 53; Hr’g Tr., Doc. 32 at 11:1–5.)

66. The parties agree that an algorithm is a step-by-step process for performing a claimed software function. (Expert Report of Andrew Habedank, ¶ 37.; Goryankin Tr., 145:23–24, 160:5–7; Hr’g Tr., Doc. 32, 11:6–7 and 127:19–21, where Monode’s counsel stated “[a]n algorithm is a defined set of steps to accomplish a function.”)

67. CMT contends that the specification of the ‘082 patent fails to disclose any algorithm for “identifying an input provided by the means for reading or marking.” (CMT Opening Claim Construction Brief (Doc. 24) at 8–11; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1.)

68. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose any algorithm for “identifying an input provided by the means for reading or marking.” (Expert Report of Andrew Habedank, ¶ 55.)

69. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “identifying an input provided by the means for reading or marking” recited in claim 1:

A computer having specially-programmed software that receives an input provided [by] the means for reading or marking and identifies that input using specially programmed software (including software applications, subroutines, plug-ins, algorithms, drivers, DLLs, user-implemented protocol and other protocols) for

communicating with the corresponding means for reading or marking.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1.)

70. Monode’s proposed structure is not an algorithm for performing the claimed software function because it simply recites a black box (i.e., “specially programmed software”) intended to perform the claimed function without providing a step-by-step procedure disclosing how the software “identif[ies] an input provided by the means for reading or marking.”

71. Monode’s proposed “algorithm” merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

72. Monode contends that the specification of the ‘082 patent discloses a corresponding algorithm for “identifying an input provided by the means for reading or marking” at:

column 1, lines 5-10;  
column 3, lines 41-48 and 55-58;  
column 4, lines 14-25;  
column 4, lines 26-34;  
column 4, lines 48-61;  
column 5, lines 1-11;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, line 32 – column 8, line 29;  
column 8, lines 30-39;  
column 8, lines 40-49;  
column 8, lines 50-65;  
column 8, line 66 – column 9, line 4;  
column 9, lines 12-35;  
column 9, line 36 – column 10, line 24;  
column 11, lines 33-45; and  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1.)

73. Neither Monode nor Dr. Goryankin, however, provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

74. The disparate specification passages and figures Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed function of “identifying an input provided by the means for reading or marking.” (See Appendix A; see also Expert Report of Andrew Habedank, ¶¶ 55–56.)

75. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix A.) (See also Expert Report of Andrew Habedank, ¶¶ 55–56.)

76. With respect to how the invention “identif[ies] an input provided by the means for reading or marking,” the ‘082 patent discloses only that “the software system identifies the nature of the request 110 and responds accordingly.” (‘082 patent, col. 9, ll. 24–25.)

77. While box 110 (“Identify nature of input”) in Figure 4 appears to be related to the claimed function, it is nothing more than a black box. That is, box 110 in Figure 4 merely states a function and provides no algorithm disclosing how the software “identif[ies] an input provided by the means for reading or marking.” (‘082 patent, Figure 4.)

78. Monode further relies on its expert, Dr. Andrei Goryankin, to support its proposed construction of the “means for identifying an input provided by the means for reading or marking.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1.)

79. But Dr. Goryankin admitted during his deposition that the specification of the ‘082 patent does not disclose an algorithm for performing the claimed function of “identifying an input”:

Q. And in the context of this particular claim element, the means for identifying an input identified by the means for reading and marking, what does the patent disclose as to what makes this a special programmed software?

A. Well, it discloses a concept. It doesn’t show how you identify things.

\* \* \*

Q. If you go to figure 4 that’s been annotated here in your report that you signed. In the box, “Identify nature of input,” and it’s a parenthetical 110 . . . How does the invention identify the nature of the input?

A. Invention doesn’t identify it. Software has to identify the nature of the input.

\* \* \*

Q. And does the patent tell you the logic that is used to identify the nature of the input?

A. No, it doesn’t. It just you have to make a decision yourself when you program that.

(Goryankin Tr., 146:21-147:3, 155:3-11, 161:23-162:3 (objections omitted).)

80. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claim 1 of “identifying an input provided by the means for reading or marking.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1; Expert Report of Andrew Habedank, ¶¶ 52-56; Goryankin Tr. at 141:12-147:3, 147:9-148:9, 154:14-156:22.)

**Means for Identifying an Input (claim 12)**

81. The ‘082 patent recites “means for identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system” as an element of claim 12. (‘082 patent, claim 12.)

82. As stipulated by the parties, the “means for identifying” claim limitation recited in claim 12 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

83. As stipulated by the parties, the claimed function performed by the “means for identifying” is “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (Doc. 29-2 at 2.)

84. The parties agree that the claimed function of “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system” is a software function implemented by a computer, and the “means for identifying” claim limitation recited in claim 12 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶ 88; Hr’g Tr., Doc. 32 at 11:1–5.)

85. CMT contends that the specification of the ‘082 patent fails to disclose any algorithm for “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (CMT Opening Claim Construction Brief (Doc. 24) at 8–11; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 2.)

86. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose any algorithm for “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (Expert Report of Andrew Habedank, ¶ 90.)

87. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system” recited in claim 12:

A computer, at least one machine in the vision/marketing system and specially programmed software that provides a

user interface and comprises the following algorithm and equivalents thereto:

1. Receive an input;
2. Determine if the input originated from the user interface or from a vision or marking machine;
3. If the input originated from a machine in the vision/markings system, identify the input using specially-programmed software (*e.g.*, a plug-in, driver, DLL, or user-implemented protocol) for communicating with the means for reading or marking; and
4. If the input originated from the user interface, identify the input according to the configuration of the user interface.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 2.)

88. Monode's proposed structure is not an algorithm for performing the claimed software function because it simply recites a black box (i.e., "specially programmed software") intended to perform the claimed function without providing a step-by-step procedure disclosing how the software "identif[ies] an input originating from at least one source selected from the group consisting of the user interface and [sic] at least one machine in the vision/ marking system."

89. Monode's proposed "algorithm" merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

90. Monode contends that the specification of the '082 patent discloses a corresponding algorithm for "identifying an input originating from at least one source selected from the group consisting of the user interface and [sic] at least one machine in the vision/ marking system" at:

column 1, lines 5-10;  
column 3, lines 41-48 and 58-64;  
column 4, lines 14-25;  
column 4, lines 26-34;  
column 4, lines 48-61;  
column 5, lines 5-11 and 19-21;  
column 5, line 25 – column 6, line 7;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, line 32 – column 8, line 20;  
column 8, lines 30-39;  
column 8, lines 40-49;  
column 8, lines 50-65;  
column 8, line 66 – column 9, line 4;

column 9, lines 12-35;  
column 9, line 36 – column 10, line 24;  
column 11, lines 21-23 and 29-45;  
column 12, line 41 – column 13, line 15;  
column 13, lines 37-49; and  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 2-3.)

91. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

92. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed function of “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (See Appendix B; *see also* Expert Report of Andrew Habedank, ¶¶ 90–91.)

93. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix B; *see also* Expert Report of Andrew Habedank, ¶¶ 90–91.)

94. With respect to how the invention “identif[ies] an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system,” the ‘082 patent discloses only that “the software system identifies the nature of the request 110 and responds accordingly.” (‘082 patent, col. 9, ll. 24–25.)

95. While box 110 (“Identify nature of input”) in Figure 4 appears to be related to the claimed function, it is nothing more than a black box. That is, box 110 in Figure 4 merely states a function and provides no algorithm disclosing how the software “identif[ies] an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (‘082 patent, Figure 4.)

96. Monode further relies on its expert, Dr. Andrei Goryankin, to support its proposed construction of the “means for identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 1.)

97. But Dr. Goryankin testified that the specification of the ‘082 patent does not disclose an algorithm for performing the claimed function of “identifying an input”:

Q. And in the context of this particular claim element, the means for identifying an input identified by the means for reading and marking, what does the patent disclose as to what makes this a special programmed software?

A. Well, it discloses a concept. It doesn’t show how you identify things.

\* \* \*

Q. If you go to figure 4 that's been annotated here in your report that you signed. In the box, "Identify nature of input," and it's a parenthetical 110 . . . How does the invention identify the nature of the input?

A. Invention doesn't identify it. Software has to identify the nature of the input.

\* \* \*

Q. And does the patent tell you the logic that is used to identify the nature of the input?

A. No, it doesn't. It just you have to make a decision yourself when you program that.

(Goryankin Tr., 146:21-147:3, 155:3-11, 161:23-162:3 (objections omitted).)

98. The specification of the '082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claim 12 of "identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system." (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 2; Expert Report of Andrew Habedank, ¶¶ 87-91; Goryankin Tr. at 141:12-147:3, 147:9-148:9, 154:14-156:22, 166:15-169:4, 177:14-178:1.)

#### **Data Processing Means (claims 1 and 12)**

99. The '082 patent recites "data processing means for processing the input so as to generate a desired output" as an element of claims 1 and 12. ('082 patent, claims 1, 12.)

100. As stipulated by the parties, the "data processing means" claim limitation recited in claims 1 and 12 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

101. As stipulated by the parties, the claimed function performed by the "data processing means" is "processing the input so as to generate a desired output." (Doc. 29-2 at 4.)

102. The parties agree that the claimed function of "processing the input so as to generate a desired output" is a software function implemented by a computer, and the "data processing means" claim limitation recited in claims 1 and 12 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶¶ 58, 93; Hr'g Tr., Doc. 32 at 11:1-5.)

103. The parties agree that a "machine interaction protocol" is "a series of rules or instructions that allows for control of machines linked to the system." (Doc. 29 at 1.)



104. The parties agree that a “system integrity verification protocol” is “a series of rules or instructions that relate to the system obtaining an install or update.” *Id.*

105. CMT contends that the specification of the ‘082 patent fails to disclose any algorithm for “processing the input so as to generate a desired output.” (CMT Opening Claim Construction Brief (Doc. 24) at 11–14; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 4.)

106. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose any algorithm for “processing the input so as to generate a desired output.” (Expert Report of Andrew Habedank, ¶¶ 60, 95.)

107. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “data processing means for processing the input so as to generate a desired output” recited in claims 1 and 12:

A computer having specially-programmed software  
comprising an information processing request protocol, a  
machine interaction protocol, and a system integrity  
verification protocol, and equivalents thereto.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 4.)

108. Monode’s proposed structure is not an algorithm for performing the claimed software function because it simply recites a computer with a black box (*i.e.*, “specially programmed software”) that includes protocols (*i.e.*, sets of rules) without providing a step-by-step procedure disclosing how the software “process[es] the input so as to generate a desired output.”

109. Monode’s proposed “algorithm” merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that includes undefined sets of rules.

110. Monode contends that the specification of the ‘082 patent discloses a corresponding algorithm for “processing the input so as to generate a desired output” at:

column 1, lines 5–10;  
column 4, lines 48–61;  
column 6, lines 41–61;  
column 7, lines 9–31;  
column 7, lines 32–55;  
column 7, line 56 – column 8, line 9;  
column 8, lines 21–29;  
column 8, lines 30–39;  
column 8, lines 50–65,  
column 8, line 66 – column 9, line 4;  
column 9, line 25 – column 10, line 42;

column 11, line 33 – column 12, line 7;  
column 13, lines 36–49;  
column 13, line 67 – column 14, line 2;  
column 15, lines 2–5; and Figures 3–8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 4.)

111. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

112. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed function of “processing the input so as to generate a desired output.” (See Appendix C; *see also* Expert Report of Andrew Habedank, ¶¶ 60–91, 95–96.)

113. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix C; *see also* Expert Report of Andrew Habedank, ¶¶ 60–91, 95–96.)

114. With respect to how the invention “process[es] the input so as to generate a desired output,” the ‘082 patent discloses only that “[i]f the input 100 relates to information processing, the software handles the input according to the information processing request protocol 120. In contrast, if the input relates to a request to interact with one or more specific pieces of hardware within the 30 system, the second protocol 130 is followed. As a third option, the software may recognize and deal with the input 100 as a request for a software or system integrity check 140.” (‘082 patent, col. 9, ll. 24–25.)

115. The ‘082 patent describes “an information processing request protocol,” “a machine interaction protocol,” and “a system integrity verification protocol,” as nothing more than an undefined set of rules. Despite some disclosure of various functions—labeled as “an information processing request protocol,” “a machine interaction protocol,” and “a system integrity verification protocol”—that the inventor envisions the software being capable of performing, the ‘082 patent does not disclose how the software “process[es] the input so as to generate a desired output” and therefore fails to disclose an algorithm corresponding to the claimed function.

116. While some of the boxes in Figure 4 appear to be related to the claimed function, Figure 4 is nothing more than a “functional diagram” that illustrates intended functions of the software as black boxes. That is, the boxes in Figure 4 merely state aspirational goals of the software in functional language but provide no algorithm disclosing how the software “process[es] the input so as to generate a desired output.” (‘082 patent, Figure 4.)

117. Monode further relies on its expert, Dr. Andrei Goryankin, to support its proposed construction of the “data processing means for processing the input so as to generate a desired output.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 6.)

118. Dr. Goryankin, however, testified that the specification of the '082 patent does not disclose an algorithm for performing the claimed function of "processing the input so as to generate a desired output." (Goryankin Tr., 157:2-162:24, 166:15-169:4.)

119. With respect to the "information processing request protocol" and the "machine interaction protocol," Dr. Goryankin testified at deposition that:

Q Okay. So going back to the information processing request protocol, that protocol and then the machine interaction protocol, so each of those protocols is a sequence of steps?

A Correct. Yes, it is.

Q And does the patent disclose those steps?

A Might not actually because those are indirect steps in this diagram.

Q Are indirect steps --

A Meaning, oh, I guess they are direct. Description as in direct. It's not listing them as 1, 2, 3, 4, it's giving you a diagram which you have to kind of process yourself in your brain and then come up with the steps.

(Goryankin Tr., 164:19-165:9.)

120. With respect to the "system integrity verification protocol," Dr. Goryankin testified that:

Q So the means for selectively -- the means for performing the function of selectively verifying and updating system integrity, that's being performed by a specialty program software again?

A Yes.

Q And the software is using some type of algorithm, or a loop to perform that function?

A Correct.

Q Okay. And I think we talked about this before, the patent itself doesn't disclose what that loop or algorithm is, right?

A Right.

(Goryankin Tr., 175:17-176:5 (objection omitted).)

121. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claims 1 and 12 of “processing the input so as to generate a desired output.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 4; Expert Report of Andrew Habedank, ¶¶ 57-61, 92-96; Goryankin Tr. at 157:2-162:24, 166:15-169:4.)

**Control Means (claims 1 and 12)**

122. The ‘082 patent recites “control means for controlling operation of the means for reading or marking in a manner that is responsive to at least one selected from the group consisting of: the input and the output” as an element of claim 1. (‘082 patent, claim 1.)

123. The ‘082 patent recites “control means for selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” as an element of claim 12. (‘082 patent, claim 12.)

124. As stipulated by the parties, the “control means” claim limitation recited in claims 1 and 12 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

125. As stipulated by the parties, the claimed function performed by the “control means” in claim 1 and claim 12 is “selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (Doc. 29-2 at 5.)

126. The parties agree that the claimed function of “selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” is a software function implemented by a computer, and the “control means” claim limitation recited in claims 1 and 12 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶¶ 63, 98; Hr’g Tr., Doc. 32 at 11:1–5.)

127. CMT contends that the specification of the ‘082 patent fails to disclose any algorithm for “selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (CMT Opening Claim Construction Brief (Doc. 24) at 14–16; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 5.)

128. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the specification of the ‘082 patent fails to disclose any algorithm for “selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (Expert Report of Andrew Habedank, ¶¶ 65, 100.)

129. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the function of “selectively operating at least a portion of the

vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” recited in claims 1 and 12:

A computer having specially-programmed software that comprises the following algorithm, and equivalents thereto:

1. Receive input or output;
2. Identify the input or output as an interaction with a system-recognized machine request;
3. Identify the appropriate specially programmed software (e.g., a plug-in, driver, DLL, or user-implemented protocol) for communicating with the means for reading or marking; and,
4. Generate instructions consistent with the input or output and the means for reading or marking.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 5.)

130. Monode’s proposed structure is not an algorithm for performing the claimed software function because it simply recites a black box (i.e., “specially programmed software”) intended to perform numbered functions without providing a step-by-step procedure disclosing how the software performs those functions.

131. Monode’s proposed “algorithm” merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

132. Monode contends that the specification of the ‘082 patent discloses a corresponding algorithm for “selectively operating at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” at:

column 1, lines 5-10;  
column 3, lines 41-48 and 55-65;  
column 4, lines 13-34;  
column 4, line 48 – column 5, line 11;  
column 5, line 34 – column 6, line 25;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, lines 32-55;  
column 7, line 56 – column 8, line 9;  
column 8, lines 10-29;  
column 8, lines 30-39;  
column 8, lines 50-65;  
column 8, line 66 – column 9, line 4;

column 9, lines 5-8, 13-19, 29-31, 34-36, and 47-48;  
column 10, lines 2-25;  
column 11, line 33 – column 12, line 7;  
column 12, line 27 – column 13, line 5;  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 5-6.)

133. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

134. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for “selectively operating at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (See Appendix D; *see also* Expert Report of Andrew Habedank, ¶¶ 65–66, 100–101.)

135. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix D; *see also* Expert Report of Andrew Habedank, ¶¶ 65–66, 100–101.)

136. With respect to how the invention “selectively operat[es] at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output,” the ‘082 patent discloses only that “the software controls the appropriate elements of the vision/marking system in a manner that is consistent with the inputs and/or outputs (ultimately, the nature of the inputs and outputs will be determinative of the nature and extent of the control).” (‘082 patent, col. 4, ll. 20–25.)

137. While box 134 (“Generate instructions consistent with the input and the device”) in Figure 4 appears to be related to the claimed function, it is nothing more than a black box. That is, box 134 in Figure 4 merely states a function and provides no algorithm disclosing how the software “selectively operat[es] at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (‘082 patent, Figure 4.)

138. The ‘082 patent states that “[t]he software control system comprises computer code which is specifically written to implement the functions mentioned above. Those skilled in the art should be able to select the appropriate code and language according to the principles discussed above” but never discloses an algorithm stating how the software “selectively operat[es] at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” and therefore fails to disclose structure in the form of an algorithm corresponding to the claimed function. (‘082 patent, col. 8, l. 67 – col. 9, l. 4.)

139. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claims 1 and 12 of “selectively operating at least a portion of the vision/marking system in a manner that is responsive to at least one selected from the group consisting of: the input and the output.” (Joint

Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 5; Expert Report of Andrew Habedank, ¶¶ 62-66, 97-101; Goryankin Tr. at 166:15-169:4, 169:5-173:9, 178:2-179:4.)

**Means for Selectively Generating and Retrieving (claims 1 and 14)**

140. The ‘082 patent recites “means for selectively generating and retrieving historical records related to the performance of the system” as an element of claim 1. (‘082 patent, claim 1.)

141. The ‘082 patent recites “means for selectively generating and retrieving data related to the marking system” as an element of claim 14. (‘082 patent, claim 14.)

142. As stipulated by the parties, the “means for selectively generating and retrieving” claim limitation recited in claims 1 and 14 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

143. As stipulated by the parties, the claimed function performed by the “means” in claim 1 is “selectively generating and retrieving historical records related to the performance of the system.” (Doc. 29-2 at 7.)

144. As stipulated by the parties, the claimed function performed by the “means” in claim 14 is “selectively generating and retrieving data related to the marking system.” (Doc. 29-2 at 7.)

145. The parties agree that the claimed functions of “selectively generating and retrieving historical records related to the performance of the system” and “selectively generating and retrieving data related to the marking system” are software functions implemented by a computer, and the “means for selectively generating and retrieving” claim limitation recited in claims 1 and 14 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶¶ 68, 103; Hr’g Tr., Doc. 32 at 11:1–5.)

146. CMT contends that the specification of the ‘082 patent fails to disclose any corresponding algorithm for “selectively generating and retrieving historical records related to the performance of the system” and “selectively generating and retrieving data related to the marking system.” (CMT Opening Claim Construction Brief (Doc. 24) at 16–19; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 7.)

147. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose any algorithm for “selectively generating and retrieving historical records related to the performance of the system” or “selectively generating and retrieving data related to the marking system.” (Expert Report of Andrew Habedank, ¶¶ 70, 105.)

148. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “selectively generating and retrieving historical records related to the performance of the system” recited in claim 1, and performing the claimed function of “selectively generating and retrieving data related to the marking system” recited in claim 14:



A computer, database or external data storage system and specially-programmed software according to the following algorithm, and equivalents thereto:

A. For generating historical records related to the performance of the system:

1. Receive input;
2. Identify the nature of the input as an information processing request;
3. Identify the encoding system (if any) in question;
4. Implement an appropriate application, subroutine, algorithm or other protocol to generate historical records by logging and tracking the identified records; and,
5. Generate appropriate output.

B. For retrieving historical records related to the performance of the system:

1. Receive input;
2. Identify the nature of the input as an information processing request;
3. Identify the encoding system (if any) in question;
4. Implement an appropriate application, subroutine, algorithm or other protocol to retrieve the identified historical records from a database or external data storage system; and
5. Generate appropriate output.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 7-8.)

149. Monode's proposed structure is not an algorithm for performing the claimed software functions because it simply recites a black box (i.e., "specially programmed software") intended to perform numbered functions without providing a step-by-step procedure disclosing how the software performs those functions.

150. Monode's proposed "algorithm" merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

151. Monode contends that the specification of the ‘082 patent discloses a corresponding algorithm for “selectively generating and retrieving historical records related to the performance of the system” and “selectively generating and retrieving data related to the marking system” at:

column 1, lines 5-10;  
column 3, lines 51-54 and 61;  
column 3, line 61 – column 4, line 3;  
column 4, lines 26-34;  
column 4, lines 48-61;  
column 5, lines 16 and 22-23;  
column 5, lines 34-65;  
column 6, lines 8-40;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, lines 32-55;  
column 7 line 56 – column 8, line 9;  
column 8, lines 21-29;  
column 8, lines 30-39;  
column 8, lines 50-65;  
column 8, line 66 – column 9, line 10;  
column 9, lines 37-38, 44-47, and 62-66;  
column 10, line 58;  
column 11, lines 14-32;  
column 11, line 46 – column 12, line 7;  
column 12, lines 9-19 and 63-65;  
column 13, lines 16-26 and 37-49;  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 8-9);

152. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

153. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed functions of “selectively generating and retrieving historical records related to the performance of the system” and “selectively generating and retrieving data related to the marking system.” (See Appendix E; *see also* Expert Report of Andrew Habedank, ¶¶ 70–71, 105–106.)

154. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix E; *see also* Expert Report of Andrew Habedank, ¶¶ 70–71, 105–106.)

155. With respect to how the invention “selectively generat[es] and retriev[es] historical records related to the performance of the system” and “selectively generat[es] and retriev[es] data related to the marking system,” the ‘082 patent discloses only that “the [software] application itself can be designed to automatically log and track historical performance data, in terms of operation

of the machine(s), actions taken by the user(s) and/or the actual encoded information being read or marked on the articles handled by the system itself. This data can then be incorporated into the aforementioned reports. The data can also be exported to external data storage systems, via a computerized network, so as to create audit logs, archives and/or back-up copies of the data.” (‘082 patent, col. 6, ll. 11–19.)

156. Figure 4 includes one box labeled “Database System (18)” and one box labeled “External Data Storage System (20). Box 18 and Box 20 in Figure 4 are hardware components of the system that provide no algorithm disclosing how the software “selectively generat[es] and retriev[es] historical records related to the performance of the system” or “selectively generat[es] and retriev[es] data related to the marking system.” (‘082 patent, Figure 4.)

157. While the ‘082 patent states that “the seamless incorporation or utilization of data into the operation of a marking system is also possible using the present invention,” it never discloses how the software accomplishes this—only that it does. (‘082 patent, col. 6, ll. 26–28.)

158. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software functions recited in claims 1 and 14 of “selectively generating and retrieving.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 7; Expert Report of Andrew Habedank, ¶¶ 67-71, 102, 106; Goryankin Tr. at 166:15-169:4, 173:10-22, 179:5-181:2.)

#### **Means for Selectively Verifying and Updating System Integrity (claim 6)**

159. The ‘082 patent recites “means for selectively verifying and updating system integrity” as an element of claim 6. (‘082 patent, claim 6.)

160. As stipulated by the parties, the “means for selectively verifying and updating” claim limitation recited in claim 6 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

161. As stipulated by the parties, the claimed function performed by the “means” is “selectively verifying and updating system integrity.” (Doc. 29-2 at 10.)

162. The parties agree that the claimed function of “selectively verifying and updating system integrity” is a software function implemented by a computer, and the “means for selectively verifying and updating” claim limitation recited in claim 6 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶ 78; Hr’g Tr., Doc. 32 at 11:1–5.)

163. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose any algorithm for “selectively verifying and updating system integrity.” (Expert Report of Andrew Habedank, ¶ 80.)

164. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “selectively verifying and updating system integrity” recited in claim 6:

A database or external data storage system and a computer having specially-programmed software according to the following algorithm, and equivalents thereto:

1. Receive input from the user or the system;
2. Identify the nature of the input as a system integrity request;
3. If required by the input, install or update software code;
4. If required by the input, determine the necessity of obtaining a particular install or update; and,
- [5.] Generate appropriate output.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 10.)

165. Monode's proposed structure is not an algorithm for performing the claimed software function because it simply recites a black box (i.e., "specially programmed software") intended to perform numbered functions without providing a step-by-step procedure disclosing how the software performs those functions.

166. Monode's proposed "algorithm" merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

167. Monode contends that the specification of the '082 patent discloses a corresponding algorithm for "selectively verifying and updating system integrity" at:

column 4, lines 48-61;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, lines 32-55;  
column 7, line 56 – column 8, line 9;  
column 8, lines 21-29;  
column 8, lines 30-39;  
column 8, lines 50-65;  
column 8, line 66 – column 9, line 4;  
column 9, lines 25-35;  
column 10, lines 26-42;  
column 12, lines 8-26;  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 10-11).

168. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

169. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed function of “selectively verifying and updating system integrity.” (*See* Appendix F.)

170. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (*See* Appendix F.)

171. With respect to how the invention “selectively verif[ies] and updat[es] system integrity,” the ‘082 patent discloses only that “[t]he software system may automatically perform such requests on a predetermined basis through the inclusion of appropriate protocols in the software code itself. Alternatively or additionally, a user may provide an input to prompt system 50 to perform such a verification.” (‘082 patent, col. 10, ll. 26–31.)

172. While box 140 (“Software or system integrity verification request”) in Figure 4 appears to be related to the claimed function, it is nothing more than a black box. That is, box 140 in Figure 4 merely states an function or capability of the software and provides no algorithm disclosing how the software “selectively verif[ies] and update[es] system integrity.” (‘082 patent, Figure 4.)

173. While the ‘082 patent states that “[t]he software to implement these functions can include the use of data encryption, check-sums and incremental data down-loading in order to ensure the integrity of operations carried out over any computer network (be it local area, wide area or internet/world-wide web based). In particular, the user-operator may request a software or system integrity check 251,” it never discloses how the software accomplishes this—only that it can. (‘082 patent, col. 6, ll. 26–28.)

174. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claim 6 of “selectively verifying and updating system integrity.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 10; Expert Report of Andrew Habedank, ¶¶ 77-81; Goryankin Tr. at 166:15-169:4, 174:24-176:5.)

#### **Means for Selectively Linking (claim 12)**

175. The ‘082 patent recites “means for selectively linking all of the machines in the vision/marking system to at least one user interface” as an element of claim 12. (‘082 patent, claim 12.)

176. As stipulated by the parties, the “means for selectively linking” claim limitation recited in claim 12 is written in means-plus-function format and is governed by 35 U.S.C. § 112(6). (Doc. 29 at 2.)

177. As stipulated by the parties, the claimed function performed by the “means” is “selectively linking all of the machines in the vision/marketing system to at least one user interface.” (Doc. 29-2 at 12.)

178. The parties agree that the claimed function of “selectively linking all of the machines in the vision/marketing system to at least one user interface” is a software function implemented by a computer, and the “means for selectively linking” claim limitation recited in claim 12 is, therefore, a computer-implemented means-plus-function. (Expert Report of Andrew Habedank, ¶ 83; Hr’g Tr., Doc. 32 at 11:1–5.)

179. CMT contends that the specification of the ‘082 patent fails to disclose any algorithm for “selectively linking all of the machines in the vision/marketing system to at least one user interface.” (CMT Opening Claim Construction Brief (Doc. 24) at 19–20; Responsive Claim Construction Brief (Doc. 25) at 9–10; and Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 12.)

180. Relying on his extensive experience and review of the ‘082 patent, CMT’s expert, Mr. Habedank, opined that the ‘082 patent specification fails to disclose a corresponding algorithm for “selectively linking all of the machines in the vision/marketing system to at least one user interface.” (Expert Report of Andrew Habedank, ¶ 85.)

181. Monode contends that the ‘082 patent specification discloses the following structure (*i.e.*, means) for performing the claimed function of “selectively linking all of the machines in the vision/marketing system to at least one user interface” recited in claim 12:

A computer or computer network having specially-programmed software that provides at least one user interface and specially-programmed software (*e.g.*, a plug-in, driver, DLL, or previously-generated user-implemented protocol) for communicating with each machine comprising the vision/marketing system.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 12.)

182. Monode’s proposed structure is not an algorithm for performing the claimed software function because it simply recites a black box (*i.e.*, “specially programmed software”) intended to perform functions without providing a step-by-step procedure disclosing how the software performs those functions.

183. Monode’s proposed “algorithm” merely references a computer having specially programmed software that performs the claimed function; or, put differently, Monode contends the claimed function is performed by a computer that is capable of performing the function.

184. Monode contends that the specification of the ‘082 patent discloses a corresponding algorithm for “selectively linking all of the machines in the vision/marketing system to at least one user interface” at:

column 1, lines 5-10;  
column 3, lines 58-65;  
column 4, lines 13-25;  
column 4, lines 48-61;  
column 5, lines 5-11 and 12-20;  
column 5, line 25 – column 6, line 25;  
column 6, lines 41-61;  
column 7, lines 9-31;  
column 7, line 32-55;  
column 7, line 56 – column 8, line 9;  
column 8, lines 21-29;  
column 8, lines 30-39;  
column 8, line 50 – column 9, line 4;  
column 10, lines 3-5;  
column 11, lines 33-45;  
column 12, line 41 – column 13, line 5;  
column 13, lines 27-36;  
Figures 3-8.

(Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 12.)

185. Neither Monode nor Dr. Goryankin provides evidence demonstrating a clear link between any of the disparate cited passages and figures of the ‘082 patent and the claimed function.

186. The disparate specification passages and figures that Monode cites from the ‘082 patent do not, individually or collectively, disclose any algorithm for performing the claimed function of selectively linking all of the machines in the vision/marking system to at least one user interface.” (See Appendix G.)

187. Nor do the disparate passages and figures of the ‘082 patent that Monode cites, individually or collectively, disclose an algorithm clearly linked to the claimed software function. (See Appendix G.)

188. With respect to how the invention “selectively link[s] all of the machines in the vision/marking system to at least one user interface,” the ‘082 patent discloses only that “[t]he software system selectively links the machines to a user interface.” (‘082 patent, col. 4, ll. 16–17.)

189. The ‘082 patent states that “FIG. 3 depicts the physical elements of a marking system which can be controlled by the present invention, along with how these elements are linked together.” (‘082 patent, col. 4, ll. 49–51.)

190. Figure 3, however, provides no algorithm or explanation how the elements are linked together and merely shows a box labeled “CPU or Computerized Network (30)” with lines extending to an “Operator Control Panel (16).”

191. While the ‘082 patent states that “software system 50 is expected to improve and make more efficient disparate marking systems by standardizing access and control, as well as



linking together heretofore incompatible machines or processes,” it never discloses how the software accomplishes this—only that it is expected to be able to. (‘082 patent, col. 6, ll. 26–28.)

192. The specification of the ‘082 patent does not disclose an algorithm (step-by-step process or finite sequence of steps) clearly linked to the software function recited in claim 12 of “selectively linking all of the machines in the vision/marketing system to at least one user interface.” (Joint Claim Construction & Prehearing Statement (Doc. 29-2), Exhibit B at 12; Expert Report of Andrew Habedank, ¶¶ 82-86; Goryankin Tr. at 176:18-177:9.)

## CONCLUSIONS OF LAW

### **The Court must attempt to construe the claims.**

1. To resolve issues of infringement and invalidity, a court must first construe the claims as a matter of law. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996).

2. Claim construction is a question of law, solely within the province of the court. *Markman v. Westview Instr., Inc.*, 517 U.S. 370, 371-72, 387 (1996).

3. The purpose of claim construction is to “determin[e] the meaning and scope of the patent claims asserted to be infringed.” *Markman*, 52 F.3d at 976.

4. The claim construction inquiry begins with the claims, which define the scope of the invention. *Markman*, 517 U.S. at 373.

5. The words of a claim generally are given their ordinary and customary meaning as interpreted by a person of ordinary skill in the art at the time the patent application was filed after reading the entire patent, including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313, 1321 (Fed. Cir. 2005).

6. “It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

7. The courts also rely on “extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips* 415 F.3d at 1314.

8. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Id.* at 1317.

### **The parties’ disclosed experts are persons having ordinary skill in the art.**

9. Based on his knowledge, skill, experience, training, or education, Mr. Habedank qualifies as an expert under FRE 703 with respect to the subject matter of the ‘082 patent.

10. Based on his knowledge, skill, experience, training, or education, Dr. Goryankin qualifies as an expert under FRE 703 with respect to the subject matter of the '082 patent.

11. A person having ordinary skill in the art at the time of the '082 patent would have (a) a Bachelor's Degree in a field relating to computers, computer science, computer programming, or engineering and five years of experience with computer programming or marking systems; or (b) a professional certificate in a field relating to computers, computer science, computer programming, or engineering and ten years of experience with marking systems; or (c) ten years of experience with programmable marking systems.

12. CMT's expert, Andrew Habedank, is at least a person of ordinary skill in the art based on his knowledge, skill, experience, training, or education.

13. Monode's expert, Andrei Goryankin, is at least a person of ordinary skill in the art based on his knowledge, skill, experience, training, or education.

14. Although Monode argues against CMT's use of Dr. Goryankin's testimony on the basis that Dr. Goryankin was proffered as a "rebuttal" expert, the law permits CMT to rely on his deposition testimony under Fed. R. Civ. P. 32(a), and the requirements of that rule have been satisfied.

15. Monode's citation to *R.C. Olmstead, Inc. v. CU Interface, LLC*, 657 F. Supp. 2d 899 (N.D. Ohio 2009) is misplaced. In *R.C. Olmstead*, the court held that "where a party identifies an expert as testifying under Rule 26(b)(4)(A), but subsequently redesignates the expert as non-testifying, the opposing party may only depose that expert upon a showing of "exceptional circumstances" under Rule 26(b)(4)(B)." *Id.* at 904.

16. Moreover, unlike the scenario in *R.C. Olmstead*, where the party did not rely on its expert, Monode relies on Dr. Goryankin's declaration and Dr. Goryankin's deposition testimony as extrinsic evidence in support of its proposed claim constructions. (See Joint Claim Construction & Prehearing Statement, Doc. 29-2.) Under Rule 26(b)(4)(A), "[a] party may depose any person who has been identified as an expert whose opinions may be presented at trial." Fed. R. Civ. P. 26(b)(4)(A). Accordingly, CMT's use of Dr. Goryankin's deposition testimony is proper.

**Construing a means-plus-function claim limitation is a two-step process.**

17. Section 112(6) of the Patent Act permits a patentee to claim structures, materials, or acts in functional language:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112(6).

18. Section 112(6) limits the scope of the functional language to the structures, materials, or acts described in the specification, and their equivalents. *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 703 (Fed. Cir. 1998).

19. “Construing a means-plus-function claim term is a two-step process.” *Williamson* 792 F.3d at 1348.

20. The first step requires the Court to “identify the claimed function.” *Id.*

21. The second step requires the Court to “determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.*

22. “It is not enough simply to list a certain structure in the specification; that structure must also be clearly linked to a claimed function in order to be a corresponding structure for that function.” *Med. Instrumentation & Diagnostics Corp. v. Elekta*, 344 F.3d 1205, 1219-20 (Fed. Cir. 2003)

23. To qualify as corresponding structure, therefore, Section 112(6) requires the specification to clearly link specified structure with the performance of the recited function. *Id.*; *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002).

24. “The requirement that structure must be clearly linked or associated with the claimed function is the *quid pro quo* for the convenience of claiming in functional terms.” *Med. Instrumentation*, 344 F.3d at 1219-20; *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997).

25. “The public should not be required to guess as to the structure for which the patentee enjoys the right to exclude.” *Med. Instrumentation*, 344 F.3d 1205 at 1219-20.

**Claiming a software function requires the disclosure of an algorithm clearly linked to the performance of the claimed function.**

26. Means-plus-function elements reciting a function performed by a computer are equally subject to the requirement of disclosing sufficient structure for performing the claimed function. *Williamson*, 792 F.3d at 1351-52.

27. Merely disclosing a “computer” does not provide sufficient structure in a means-plus-function limitation claiming a software function. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008).

28. “Simply disclosing software . . . without providing some detail about the means to accomplish the function” is likewise insufficient. *Noah Sys. Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012)

29. Nor is it adequate under Section 112(6) to “simply describe[] the function to be performed.” *BlackBoard v. Desire2Learn, Inc.*, 574 F.3d 1371, 1384 (Fed. Cir. 2009); *see also Twin Peaks Software Inc. v. IBM Corp.*, 690 Fed Appx. 656 (Fed. Cir. 2017).

30. The specification must instead describe how the software “ensures those functions are performed.” *BlackBoard* 574 F.3d at 1384.

31. A means-plus-function limitation claiming a software function requires the specification to disclose an algorithm as a step-by-step procedure for performing the claimed function. *Eon Corp. v. AT&T Mobility LLC*, 785 F.3d 616, 624 (Fed. Cir. 2015).

32. An algorithm “may be expressed as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.” *Williamson* 792 F.3d at 1348.

**Computer-implemented means-plus-function limitations are subject to the definiteness requirement.**

33. Section 112(2) of the Patent Act requires the specification of a patent to “conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(2).

34. Means-plus-function claim limitations under Section 112(6) “must satisfy” the definiteness requirement in Section 112(2). *Noah Sys.*, 675 F.3d at 1311-12.

35. “Whether a claim complies with the definiteness requirement . . . is a matter of claim construction.” *Id.*

36. Determining that “a patent claim is invalid for failure to meet the definiteness requirement . . . is a legal conclusion.” *Id.*

37. Indefiniteness determinations may be based on subsidiary fact findings. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 842 (2015).

38. “Any fact critical to a holding on indefiniteness . . . must be proven by the challenger by clear and convincing evidence.” *Intel Corp. v. VIA Techs.*, 319 F.3d 1357, 1366 (Fed. Cir. 2003).

39. For a computer-implemented means-plus-function limitation, if the specification fails to disclose an algorithm for performing a claimed software function, the term is indefinite. *Eon Corp.*, 785 F.3d at 624 (finding means-plus function claims invalid for lack of disclosure of detailed computer algorithm).

40. Moreover, a patent that does not comply with the statutory requirement of clearly associating structure to the recited function is invalid for failure to satisfy the definiteness requirement of Section 112(2). *Williamson*, 792 F.3d at 1348 (“If the patentee fails to disclose adequate corresponding structure, the claim is indefinite”).

41. Federal Circuit “case law regarding special purpose computer-implemented means-plus-functions claims is divided into two distinct groups: First, cases in which the specification discloses no algorithm; and second, cases in which the specification does disclose an algorithm but a defendant contends that disclosure is inadequate.” *Noah Sys.* 675 F.3d at 1313.

42. “While ‘[i]t is certainly true that the sufficiency of the disclosure of algorithmic structure must be judged in light of what one of ordinary skill in the art would understand the disclosure to impart,’ in a situation in which the specification discloses no algorithm, ‘[t]hat principle . . . has no application . . . .’” *Id.*

43. “Where no structure appears, the question ‘is not whether the algorithm that was disclosed was described with sufficient specificity, but whether an algorithm was disclosed at all.’” *Id.*

44. “When the specification discloses some algorithm, on the other hand, the question is whether the disclosed algorithm, from the viewpoint of a person of ordinary skill, is sufficient to define the structure and make the bounds of the claim understandable.” *Id.*

45. Monode asks this Court to adopt its proposed construction for “means for identifying an input” because “[o]ne of skill in the art *would know* that a computer implementing such a specially-programmed driver, DLL, or protocol *would be capable* of performing the function of identifying an input provided by the means for reading or marking.” (Doc. 23, p. 10, emphasis added). As to how the software “identif[ies] an input provided by the means for reading or marking,” Monode explains, “[t]he manner in which the specially-programmed software identified in the specification functions and performs is ‘*self-evident*’ to a computer programmers [sic] of ordinary skill in the art.” (*Id.*, emphasis added).

46. Monode’s reasoning conflicts with Federal Circuit precedent, confusing a person’s ability with the patent’s disclosure.

47. It is irrelevant to the § 112(2) analysis whether a person skilled in the art would know how to write a program to perform the claimed function. *BlackBoard*, 574 F.3d at 1384–85.

48. “[T]he fact that one of skill in the art could program a computer to perform the recited functions cannot create structure where none otherwise is disclosed.” *Williamson*, 792 F.3d at 1351; *see also Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1302 (Fed. Cir. 2005). .

49. Indeed, “[t]he testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” *Williamson*, 792 F.3d at 1354.

50. “The prohibition against using expert testimony to create structure where none otherwise exists is a direct consequence of the requirement that the specification adequately disclose corresponding structure.” *Id.*

51. A patentee cannot “simply describe[] the function to be performed” and leave it to a person having ordinary skill in the art to fill in the blanks. *BlackBoard*, 574 F.3d at 1384.

52. The specification must instead describe how the software “ensures those functions are performed.” *Id.*

53. Further, it is impermissible to rely on expert testimony of a person of ordinary skill in the art to “rewrite the patent’s specification” to provide linkage or association between a recited

function in the claim and an unlinked structure identified in the specification. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1332 (Fed. Cir. 2003).

**The computer-implemented means-plus-function limitations recited in the '082 patent are indefinite and thus invalid.**

54. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “identifying an input provided by the means for reading or marking” clearly linked to the claimed function, as required under 35 U.S.C. § 112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “means for identifying an input provided by the means for reading or marking” recited in claim 1 is indefinite under 35 U.S.C. § 112(2). (See Findings of Fact, ¶¶ 62–80.)

55. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system” clearly linked to the claimed function, as required under 35 U.S.C. § 112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “means for identifying an input originating from at least one source selected from the group consisting of the user interface arid [sic] at least one machine in the vision/ marking system” recited in claim 12 is indefinite under 35 U.S.C. § 112(2). (See Findings of Fact, ¶¶ 81–98.)

56. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “processing the input so as to generate a desired output” clearly linked to the claimed function, as required under 35 U.S.C. § 112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “data processing means for processing the input so as to generate a desired output” recited in claims 1 and 12 is indefinite under 35 U.S.C. § 112(2). (See Findings of Fact, ¶¶ 99–121.)

57. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “controlling operation of the means for reading or marking in a manner that is responsive to at least one selected from the group consisting of: the input and the output” clearly linked to the claimed function as required under 35 U.S.C. § 112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “control means for controlling operation of the means for reading or marking in a manner that is responsive to at least one selected from the group consisting of: the input and the output” recited in claim 1 and the claim element “control means for selectively operating at least a portion of the vision/marketing system in a manner that is responsive to at least one selected from the group consisting of: the input and the output” recited in claim 6 are indefinite under 35 U.S.C. § 112(2). (See Findings of Fact, ¶¶ 122–139.)



58. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “selectively generating and retrieving historical records related to the performance of the system” or “selectively generating and retrieving data related to the marking system” clearly linked to the claimed function, as required under 35 U.S.C. §112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “means for selectively generating and retrieving historical records related to the performance of the system” recited in claim 1 and the claim element “means for selectively generating and retrieving data related to the marking system” recited in claim 14 are indefinite under 35 U.S.C. § 112(2). (*See Findings of Fact*, ¶¶ 140–158.)

59. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “selectively verifying and updating system integrity” clearly linked to the claimed function as required under 35 U.S.C. §112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “means for selectively verifying and updating system integrity” recited in claim 6 is indefinite under 35 U.S.C. § 112(2). (*See Findings of Fact*, ¶¶ 159–174.)

60. Based on clear and convincing evidence, as understood by a person having ordinary skill in the art at the time of the '082 patent, the specification of the '082 patent fails to disclose an algorithm for “selectively linking all of the machines in the vision/marketing system to at least one user interface” clearly linked to the claimed function, as required under 35 U.S.C. §112(6). For this reason, the '082 patent fails to disclose adequate structure, and one having ordinary skill in the art would be unable to properly construe the claim term. Accordingly, the claim element “means for selectively linking all of the machines in the vision/marketing system to at least one user interface” recited in claim 12 is indefinite under 35 U.S.C. § 112(2). (*See Findings of Fact*, ¶¶ 175–192.)

61. The absence of corresponding structure for performing the claimed software functions renders the computer-implemented-means-plus-function claims of the '082 patent invalid for indefiniteness under 35 U.S.C. 112(2) as a matter of law.

62. Because one or more claim terms recited in each of the independent claims 1 and 12 is indefinite under 35 U.S.C. § 112(2), based on clear and convincing evidence, the '082 patent is invalid as a matter of law.

Dated: \_\_\_\_\_

IT IS SO ORDERED,

/s/  
Donald C. Nugent